Fire and Fuel Dynamics Monitoring
in the Southern Plains Network

Prescribed Fire at Lyndon B. Johnson NHP

Importance / Issues

Fire is one of the most influential disturbance processes in Great Plains ecosystems. Fire is an important aspect to monitor because it influences vegetative succession and distribution, wildlife habitat, soil parameters, hydrology, water quality and air quality. In addition, the natural fire regime (fire frequency, fire extent and severity) is likely to respond to local and global climate changes. Baseline monitoring of fire parameters will provide explanatory variables for other ecological changes detected.

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Preliminary Monitoring Objective

1. Track the location, extent, timing, and severity of wildland and prescribed fires in SOPN parks
2. Track successional effects of fire and burn severity on: the species composition and structure of vegetation; soil temperature and moisture; and animal community composition.

Potential Measures

Number of fires, fire extent and configuration, fire severity, frequency of fire, vegetation responses to fire, fuel loads.

Protocol Development & Status

To be determined.
We are determining whether this vital sign can be integrated into the grassland vegetation protocol. We will make a decision this fall whether we will need an additional cooperator or staff member to lead development of this vital sign.

Post Fire at Washita Battlefield NHS